U.S. Appl. No.: 10/595,624

Attorney Docket No. PSA0313156

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the

application.

Listing of Claims:

1. (Currently amended): A system for assisting the regeneration of depollution means

associated with oxidation catalyst-forming means, and integrated in an exhaust line of a motor

vehicle diesel engine, and in which the engine is associated with common rail means for feeding

fuel to the cylinders of the engine and adapted, at constant torque, to implement a strategy of

regeneration by injecting fuel into the cylinders in at least one postinjection, the system

comprising:

· detector means for detecting a request for regeneration and thus for postiniection:

· detector means for detecting that the vehicle accelerator pedal is being raised;

· acquisition means for acquiring the temperature downstream from the catalyst-forming

means:

· determination means for determining, on the basis of said temperature, a maximum

duration for applying postinjections during a stage in which the main injections are stopped and

the engine is returning to idling as a result of the accelerator pedal being raised; and

· cutoff means for immediately cutting off the postinjections as soon as the duration of

postinjection use has reached the predetermined maximum duration of application during the stage

in which the main injections are stopped and the engine is returning to idling as a result of the

accelerator pedal being raised, so as to limit the quantities of fuel that are postinjected when

Page 2 of 10

U.S. Appl. No.: 10/595,624

Attorney Docket No. PSA0313156

temperature levels in the exhaust line are unfavorably low.

2. (Previously presented): A system according to claim 1, wherein the depollution means

comprises a particle filter.

3. (Previously presented): A system according to claim 1, wherein the depollution means

comprises a NOx trap.

4. (Previously presented): A system according to claim 1, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution means in order to facilitate regeneration thereof.

5. (Previously presented): A system according to claim 1, wherein the fuel includes an

additive forming a NOx trap.

6. (Previously presented): A system according to claim 1, wherein the engine is associated

with a turbocharger.

7. (Previously presented): A system according to claim 2, wherein the depollution means

comprises a NOx trap.

Page 3 of 10

U.S. Appl. No.: 10/595,624

Attorney Docket No. PSA0313156

8. (Previously presented): A system according to claim 2, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution means in order to facilitate regeneration thereof.

9. (Previously presented): A system according to claim 3, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution means in order to facilitate regeneration thereof.

10. (Previously presented): A system according to claim 7, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution means in order to facilitate regeneration thereof.

11. (Currently amended): A method of assisting the regeneration of a depollution device

associated with an oxidation catalyst, and integrated in an exhaust line of a motor vehicle diesel

engine, and in which the engine is associated with a common rail for feeding fuel to the cylinders

of the engine and adapted, at constant torque, to implement a strategy of regeneration by injecting

fuel into the cylinders in at least one postinjection, the method comprising:

· detecting a request for regeneration and thus for postinjection;

· detecting that the vehicle accelerator pedal is being raised;

· acquiring the temperature downstream from the oxidation catalyst;

· determining, on the basis of said temperature, a maximum duration for applying

Page 4 of 10

U.S. Appl. No.: 10/595,624

Attorney Docket No. PSA0313156

postinjections during a stage in which the main injections are stopped and the engine is returning

to idling as a result of the accelerator pedal being raised; and

· immediately cutting off the postinjections as soon as the duration of postinjection use has

reached the predetermined maximum duration of application during this stage in which the main

injections are stopped and the engine is returning to idling as a result of the accelerator pedal being

raised, so as to limit the quantities of fuel that are postinjected when temperature levels in the

exhaust line are unfavorably low.

12. (Previously presented): A method according to claim 11, wherein the depollution

device comprises a particle filter.

13. (Previously presented): A method according to claim 11, wherein the depollution

device comprises a NOx trap.

14. (Previously presented): A method according to claim 11, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution device in order to facilitate regeneration thereof.

15. (Previously presented): A method according to claim 11, wherein the fuel includes an

additive forming a NOx trap.

Page 5 of 10

U.S. Appl. No.: 10/595,624

Attorney Docket No. PSA0313156

16. (Previously presented): A method according to claim 11, wherein the engine is

associated with a turbocharger.

17. (Previously presented): A method according to claim 12, wherein the depollution

device comprises a NOx trap.

18. (Previously presented): A method according to claim 12, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution device in order to facilitate regeneration thereof.

19. (Previously presented): A method according to claim 13, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution device in order to facilitate regeneration thereof.

20. (Previously presented): A method according to claim 17, wherein the fuel includes an

additive for becoming deposited together with the particles with which it is mixed on the

depollution device in order to facilitate regeneration thereof.

Page 6 of 10